

Propylene oxide (プロピレンオキシド)

Experimental Data

Chemical Name:	Propylene oxide
Synonym	1,2-Epoxypropane Oxirane, methyl-
Molecular weight:	58.08
Melting point:	°C
Boiling point:	34.23°C
Chemical Structure	
$\begin{array}{c} \text{CH}_2 - \text{CH} - \text{CH}_3 \\ \diagdown \quad \diagup \\ \text{O} \end{array}$	
CAS No :	75-56-9
MITI No :	(2)-219
Source of Substance:	Wako Pure Chemical Ind., Ltd.
Lot. No. :	ECQ2667
Purity:	%
Vehicle:	Saline

Judgement for  
Chromosomal Aberration in CHL: Positive

IARC Evaluation : G 2A

Treated Time (Hr)	Concentration (mg/ml)	No. of Meta-phase	Poly-ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							Judge
					Gap	CTB	CTE	CSB	CSE	Total		
										-G	+G	
Saline 24		200	0	—	0	0.5	0.5	0	0	1.0	1.0	—
48		200	0	—	0	0	0	0	0	0	0	—
Test Chemical												
24	0.025	200	0	—	0.5	0	0.5	0	0	0.5	1.0	—
	0.050	200	0.5	—	0	0.5	2.5	0	0	3.0	3.0	—
	0.10	200	1.0	—	9.0	16.5	39.0	0.5	0	48.5	50.5	+
	0.15				No observation for metaphase							
	0.20				No observation for metaphase							
48	0.025	200	0	—	0.5	0	0.5	0	0	0.5	1.0	—
	0.050	200	0	—	0.5	1.5	2.0	0	0	3.5	4.0	—
	0.10	200	0	—	5.0	20.5	71.5	0	0	77.5	77.5	+
	0.15				No observation for metaphase							
	0.20				No observation for metaphase							
Positive Control												
(MMC) 24	0.00005	200	0.5	—	1.5	5.0	34.0	0	0	35.5	36.0	+
48	0.00005	200	1.0	—	2.5	10.0	61.0	0	0.5	63.5	63.5	+

Experimental Data

S 9 with or without	Concent- ration (mg/ml)	No. of Meta- phase	Poly- ploid (%)	Judge	Cell with Structural Chromosome Aberration (%)							
					Gap	CTB	CTE	CSB	CSE	Total		Judge
										-G	+G	
Saline	-	200	1.0	-	0	0	0.5	0	0	0.5	0.5	-
	+	200	0	-	0	0	0	0	0	0	0	-
<b>Test Chemical</b>												
-	0.15	200	1.5	-	0	0.5	1.5	0	0.5	2.5	2.5	-
	0.30	200	0	-	1.0	5.5	37.5	0	0.5	39.0	39.0	+
	0.45	165	0	-	9.7	43.6	98.2	0	0.5	98.8	98.8	+
	0.60				No observation for metaphase							
	0.75				No observation for metaphase							
	+	0.15	200	0.5	-	0	0	0.5	0	0	0.5	0.5
+	0.30	200	0.5	-	0.5	1.5	0.5	0	0	2.5	2.5	-
	0.45	200	0.5	-	3.5	7.0	50.5	0	0	51.0	51.0	+
	0.60	196	0	-	10.7	36.7	95.4	0	0	99.5	99.5	+
	0.75				No observation for metaphase							
	<b>Positive Control</b>											
(B(a)P)	+	200	1.5	-	1.0	0.5	0	0	0	0.5	1.5	-
	+	200	0.5	-	3.5	2.0	43.0	0	0	43.0	43.5	+